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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,831	08/05/2004	Walter Guy Scott	10662.3803	4830
	7590 03/29/2007 SY AND DIMAGGIO PA	EXAMINER		
MALIN HALEY AND DIMAGGIO, PA 1936 S ANDREWS AVENUE			JAWORSKI, FRANCIS J	
FORT LAUDERDALE, FL 33316			ART UNIT	PAPER NUMBER
			3768	
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SHORTENED STATUTOR	RY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
· 3 MONTHS		03/29/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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	Application No.	Applicant(s)			
	10/710,831	SCOTT ET AL.			
Office Action Summary	Examiner	Art Unit			
	Jaworski Francis J.	3768			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DATE of the may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period we failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be time will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	ely filed the mailing date of this communication.  O (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on	_•				
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This					
3) Since this application is in condition for allowan	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is				
closed in accordance with the practice under E	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.				
Disposition of Claims					
<ul> <li>4) Claim(s) 1 - 4 is/are pending in the application.</li> <li>4a) Of the above claim(s) is/are withdrawn from consideration.</li> <li>5) Claim(s) is/are allowed.</li> <li>6) Claim(s) 1-4 is/are rejected.</li> <li>7) Claim(s) is/are objected to.</li> <li>8) Claim(s) are subject to restriction and/or election requirement.</li> </ul>					
Application Papers					
9)☐ The specification is objected to by the Examiner 10)☒ The drawing(s) filed on <u>05 August 2004</u> is/are:  Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction 11)☐ The oath or declaration is objected to by the Examiner	a) accepted or b) objected to be accepted or b) objected to be a beginning or b) objected to be a compared if the drawing (s) is objected if the drawing (s) is objected in the drawing of the beginning or be accepted to be a compared in the beginning or be accepted to be a compared to be accepted to accepted to be accepted to accepted to be accepted	37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
Attachment(s)					
<ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO/SB/08)</li> <li>Paper No(s)/Mail Date</li> </ol>	4) Interview Summary ( Paper No(s)/Mail Dail 5) Notice of Informal Pa 6) Other:	te			

#### **DETAILED ACTION**

#### Claim Objections

Claim 4 is objected to because of the following informalities: typo 'breams' should change to -- beams --. Appropriate correction is required.

### Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 – 4 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Current PTO guidelines require that the claim if containing an algorithmic process, be as a whole directed towards a useful, concrete and tangible result if there is no physical conversion or alteration of a material or thing. Here signals are being altered and processed. While claim 1 is stated to be 'instantiated' by an FPGA or ASIC-based correlator set, the test is more comprehensive than to turn on being redeemed by a particular descriptor. That is, the result of the claimed structure of claim 1 is an estimated backscatter displacement vector in three dimensional space, which per se is an abstract result. Dependent claims then pertain to structural effecting of portions of the algorithm and to deriving a vector movement stream.

### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 – 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are considered to be incomplete for purposes of the preamble in that whereas the preamble inferences the spatiality of scanning which would pertain to electronic or mechanical steering of the array and also the ascertainment of a vector displacement which would pertain to a temporality lapse over which a scanning has occurred that is sufficient for such displacement to occur, and whereas backscattering is inferential of a transducer(s) operated in a pulse-echo mode and partially overlapping beams is inferential of a certain line or beam density, and while the dependent claims are variously indicative of an operational algorithm which is not recited as resident anywhere and of clocking sans clock structure or input and of pairing or spatial volumer correlator operation no interconnection of correlators is recited so as to be adapted for accomplishing such.

## Claim Rejections - 35 USC § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Primary Examiner

**Art Unit: 3768** 

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnefous (US5000184) in view of Guracar (US6544184).

The former is directed to providing a parallel set of correlators/intercorrelation functions for determination of displacement vectors in three dimensions. Since the art later advanced as evidenced by Guracar such that FPGAs or ASICs were known to be used for intercorrelation processes, see col. 7 lines 26-34, it would have been obvious to use such in the dcetermination of three dimensional displacement vectors as in the former.

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 571-272-4738.

FJJ:fjj

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